

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 03/107039 A2

(51) International Patent Classification⁷:

G02B

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/IL03/00496

(22) International Filing Date:

12 June 2003 (12.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/387,901 13 June 2002 (13.06.2002) US

(71) Applicant (*for all designated States except US*): **I SEE TECH LTD.** [IL/IL]; 33 Raziel St., 46812 Herzliya (IL).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **SOFER, Eli** [IL/IL]; 33 Raziel St., 46812 Herzliya (IL). **TIDHAR, Amnon** [IL/IL]; 44 Tzahal St., 56265 Yahud (IL).

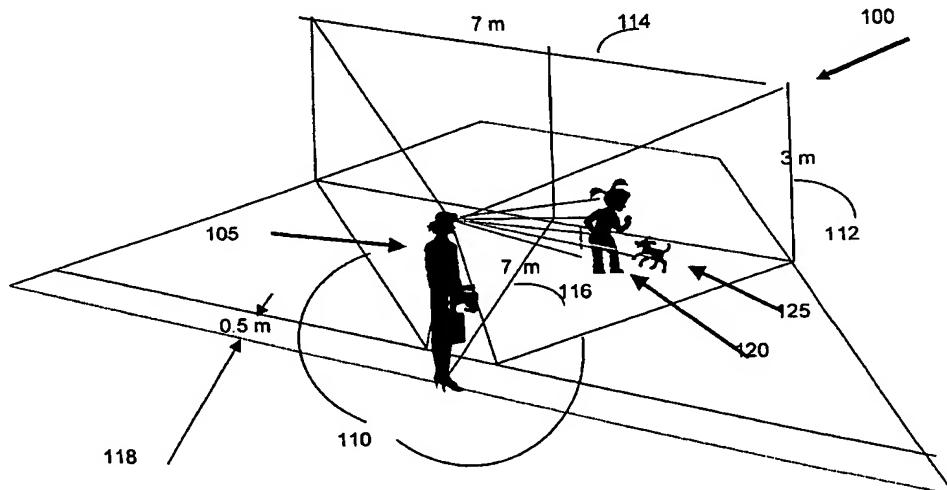
(74) Agent: **LANGER, Edward**; Shibleth, Yisraeli, Roberts, Zisman & Co., 46 Motefiore St., 65201 Tel-Aviv (IL).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR A MULTISENSOR IMAGING AND SCENE INTERPRETATION SYSTEM TO AID THE VISUALLY IMPAIRED



WO 03/107039 A2

(57) Abstract: An apparatus and method for aiding a visually impaired or blind person to detect, identify and avoid objects in the field of vision of the surroundings. The apparatus includes electro-optical devices to detect and identify objects, a control unit, which receives and processes information from the devices and a vocal representation unit to receive instructions from the control unit for purpose of audibly describing the objects to the person in the field of vision, thereby enabling the person to cope and proceed safely in the surroundings. The method for aiding a visually impaired person to detect, identify and objects in the field of vision surroundings includes the steps of receiving visual images of the objects, receiving range information concerning the objects, processing the image information, and audibly describing to the person the objects in the field of vision, thereby enabling the person to cope with, and proceed in his surroundings.